

REMARKS

Reconsideration of this application is respectfully requested. Claims 1-38, 40 and 41 are pending in the application. Upon entry of this Amendment, claims 18, 27 and 29 will be amended.

In the outstanding Final Office Action of July 27, 2005, the Examiner objected to claims 18, 27, and 29 because of certain informalities involving problems of antecedent bases perceived by the Examiner. Claims 18, 27, and 29 have now been amended as suggested by the Examiner to overcome the Examiner's objections. In view of these amendments, the Examiner's objections to claims 18, 27, and 29 should now be withdrawn.

The Examiner also rejected, as being unpatentable under 35 U.S.C. §103(a):

(1) claims 1 – 7, 9 – 14, 16, 18 – 23, 25 – 30, 32 – 38, 40 and 41 over Johnson *et al.* (USP No. 6,553,336) in view of Horn *et al.* (U.S. Patent Application Publication No. 2001/0053940) and Reid *et al.* (USP No. 6,298,308),

(2) claim 17 over Johnson in view of Horn and Reid and further in view of Reed *et al.* (USP No. 4,259,835), and

(3) claims 8, 15, 24, and 31 over Johnson in view of Horn and Reid and further in view of Ruffolo *et al.* (USP No. 6,041,288).

The Examiner's rejections are respectfully traversed.

For a claimed invention to be obvious over a combination of prior art references, there must be some suggestion, motivation or teaching in the prior art that would have led one of ordinary skill in the art to combine the references to produce the claimed invention. *E.g., Ashland Oil, Inc. v. Delta Resins & Refracs.*, 776 F.2d 281, 293 (Fed. Cir. 1985) (Emphasis added). Here, the claimed invention of the present application is not obvious over the references cited against the claims by the Examiner because, even assuming, *arguendo*, that the Examiner properly identified some suggestion, motivation or teaching in the cited references that would have led one of ordinary skill in the art to properly combine the references, as argued by the Examiner, the resulting combination still would not be the claimed invention because such references, when so combined, do not include all of the features of the rejected claims.

Each of independent claims 1, 18, 34 and 40 pending in the present application recites the use of a plurality of coaching tools using operating data collected from power generation equipment, determinations that predefined events occurred during operation of the power generation equipment, and historical data pertaining to the operation of fleet power generation equipment to decide how to respond to the occurrence of predefined events in the monitored power generation equipment. Each of independent claims 1, 18, 34 and 40 also recites that the coaching tools are displayed at an on-site monitor located by the power generation equipment being monitored to assist operators located at the on-site monitor to respond to time-critical predefined events occurring in the power

generation equipment in an expedited timeframe, and at the remote management system at a location different from where the power generation equipment is located to allow members of the remote management system to respond to non-time-critical predefined events occurring in the power generation equipment in a timeframe that is not expedited.

None the references cited by the Examiner in his §103(a) rejection, either alone or in combination with the other cited references, discloses or suggests displaying coaching tools at an on-site monitor located by the power generation equipment being monitored to assist operators located at the on-site monitor to respond to time-critical predefined events occurring in the power generation equipment in an expedited timeframe and at a remote management system at a location different from where the power generation equipment is located to allow members of the remote management system to respond to non-time-critical predefined events occurring in the power generation equipment in a timeframe that is not expedited.

As noted in the Amendment filed on May 11, 2005, Johnson discloses a remote monitoring system, generally shown in Figures 1 and 2 of Johnson, that includes a plurality of transducers 10 for measuring specific characteristics or parameters of property and/or equipment, a transducer control module 14 that receives and analyzes transducer measurements and detects alarm conditions, a monitoring system 20 that receives, stores and analyzes information received from the transducer control module 14 via a wide area network 18 and a communications device 16, and a plurality end-user

display terminals 22 that receive reports of information from the monitoring system 10. The transducers 10 can be sensors and/or actuators. Johnson, col. 4, ln. 17. The transducer actuators can be used “to control the state of an object, for example, controlling power to a device remotely via terminal 22.” Johnson, col. 4, lns. 14-17. Thus, an end-user monitors and controls property or equipment through an end-user display terminal 22 that communicates with transducer sensors/actuators 10 through transducer control module 14 and monitoring system 20. *See, e.g.*, Johnson, col. 15, lns. 59-63; *see also*, Johnson, generally at cols. 18-20. This is different from the claimed invention described in independent claims 1, 18, 34 and 40, wherein the on-site monitor/first analyzing means and the remote management system/second analyzing means display coaching tools that are used either by persons at the on-site location to decide how to respond to time-critical predefined events occurring in the monitored power generation equipment or by persons at the remote location to decide how to respond to non-time-critical predefined events occurring in such equipment.

The Examiner acknowledges that Johnson does not disclose a plurality of coaching tools to decide how to respond to a predefined event. Thus, the Examiner looks to certain secondary references to compensate for the deficiencies in the teachings of Johnson. However, the secondary references cited by the Examiner do not, in fact, compensate for the deficiency in the teachings of Johnson noted above.

In his §103(a) rejection, the Examiner looks to Horn as disclosing "a method and system for assessing plant parameters and performance over a global network including means of obtaining operating data of power generation equipment . . .for comparison with historical fleet power generation data . . . ." As also noted in the Amendment filed on May 11, 2005, the paragraphs cited by the Examiner to support his contention regarding the teachings of Horn, *i.e.*, 0002-0004 and 0034, do not, in fact, pertain to power generation equipment. Rather, such paragraphs discuss assessing boiling water reactor plant parameters and performance and maintaining a historical database of such parameter and performance data that is used to assess reactor performance and predict reactive behavior. In any event, clearly, the portion of Horn cited by the Examiner does not disclose or suggest the use of a plurality of coaching tools that are displayed at either an on-site monitor or a remote management system to assist either operators located at the on-site monitor to respond to time-critical predefined events occurring in the power generation equipment in a timeframe that is expedited or operators of the remote management system to respond to a non-time-critical predefined event in the power generation equipment in a timeframe that is not expedited.

Reid discloses a system employing automated data collector/analyzers called "local experts" to acquire and analyze vibration data substantially continuously from one or more machines located at the sites where the local experts are located. *See Reid*, col. 2, lns. 38 – 40. Each local expert is computer-driven and includes an expert system and

database which allows the local expert to analyze the vibration data locally for each particular machine to detect incipient failure, diagnose wear, etc. *See Reid, col. 2, lns. 47 – 53.* The database within each local expert contains information specific to the machines connected thereto, as well as information relating to machines of the same type. The expert system within each local expert draws on such information as part of a rules database and/or knowledge database also included therein, and ascertains which machines are operating normally, or are experiencing minor, moderate or severe problems. Depending on the severity of any problems identified, the local experts are configured to contact the appropriate personnel by email, pages, causing a network event (e.g., setting a flag), *etc.* to inform the personnel of the particular cause of the problem and recommend action needed to be taken *See Reid, col. 3, lns. 1 – 21.* Each local expert can also optionally connect to a central monitoring location via a dial-up network or Internet, for example, and automatically replicate its data within its database into a central monitoring location database, such that the data is available for review at the central monitoring location. The central monitoring location can remotely control the local expert to perform special testing and analysis in real time so that "someone at the central monitoring location . . . [can] look effectively 'under the hood' of the particular machines within the network without necessitating sending personnel directly to the site." *See Reid, col. 3, lns. 56 – 65 (Emphasis added).* Clearly, then, this arrangement is also different from the claimed invention described in independent claims 1, 18, 34 and 40,

wherein the on-site monitor/first analyzing means and the remote management system/second analyzing means display coaching tools that are used either by persons at the on-site location to decide how to respond to time-critical predefined events occurring in the monitored power generation equipment or by persons at the remote location to decide how to respond to non-time-critical predefined events occurring in such equipment.

In rejecting claim 17 under §103(a) as being unpatentable over Johnson in view of Horn and Reid and further in view of Reed, the Examiner looks to Reed as disclosing a system and method for monitoring industrial gas turbine operating parameters and for providing gas turbine power plant control system inputs representative thereof comprising coaching tools for aiding the production and determination of turbine operation, including operation sequencing and alarms in engineering operation algorithms. While the portion of Reed cited by the Examiner discloses a sequencing program that is run to provide plant sequencing operations required during turbine startup, to provide certain alarm detections and to provide sequencing of various plant tasks during time periods other than the turbine startup time period, the cited portion of Reed does not disclose the use of a plurality of coaching tools to decide how to respond to the occurrence of a predefined event in monitored power generation equipment wherein the coaching tools are displayed at an on-site monitor to assist operators located at the on-site monitor to respond to time-critical predefined events occurring in the power

generation equipment in an expedited time frame, and displayed at a remote management system to allow members of the remote management system to respond to non-time-critical predefined events in a time frame that is not expedited.

In rejecting claims 8, 15, 24 and 31 under §103(a) as being unpatentable over Johnson in view of Horn and Reid and further in view of Ruffolo, the Examiner looked to Ruffolo as teaching a method and apparatus for evaluating AC power distribution equipment including means for determining equipment operational data and comparing the operational data with equipment operating data provided by manufacturers of the equipment to determine whether any sensor data exceeds the manufacturer's operating limits and/or is within the manufacturer's range for the equipment. The Examiner also looks to Ruffolo to teaching the issuing of an alarm after current operational data is outside a manufacturer's range. As further noted in the Amendment filed on May 11, 2005, while Ruffolo discloses a technique for evaluating AC power distribution equipment in a facility by comparing test data for the equipment with a range of manufacturers specified, and/or standards organization recommended operating parameters for the equipment, the cited portion of Ruffolo does not disclose the use of a plurality of coaching tools to decide how to respond to the occurrence of a predefined event in monitored power generation equipment wherein the coaching tools are displayed at an on-site monitor to assist operators located at the on-site monitor to respond to time-critical predefined events occurring in the power generation equipment in an expedited



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time frame, and displayed at a remote management system to allow members of the remote management system to respond to non-time-critical predefined events in a time frame that is not expedited.

In sum, the system and method of monitoring the occurrence of predefined events in power generation equipment described in independent claims 1, 18, 34 and 40 are not rendered obvious by the teachings of Johnson, either alone, or in combination with the secondary and tertiary references cited by the Examiner. As such, the dependent claims remaining in the application which depend either directly or indirectly from independent claims 1, 18, 34 and 40, *i.e.*, claims 2-17, 19-33, 35-38 and 41, are also not rendered obvious by the references cited by the Examiner.

In view of the foregoing, it is now believed that all of the claims remaining in the application, *i.e.*, claims 1-38, and 40 and 41, are now in condition for allowance, which action is earnestly solicited. If any issues remain in this application, the Examiner is urged to contact the undersigned at the telephone number listed below.

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Respectfully submitted,

NIXON & VANDERHYE P.C.

By: Robert A. Molan  
Robert A. Molan  
Reg. No. 29,834

RAM:drt  
901 North Glebe Road, 11<sup>th</sup> Floor  
Arlington, VA 22203  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100